**SUPPLEMENTAL DIGITAL CONTENT**

Impact of nurse-led remote screening and prompting for evidence-based
practices in the ICU

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eFigure 1. Evidence-based practices over time, including use of daily interruption of sedation (panel A) and spontaneous breathing trails (panel B). Shaded area represents excluded run-in period, with included patients to the left (pre-period) and right (post-period) of the shaded area.
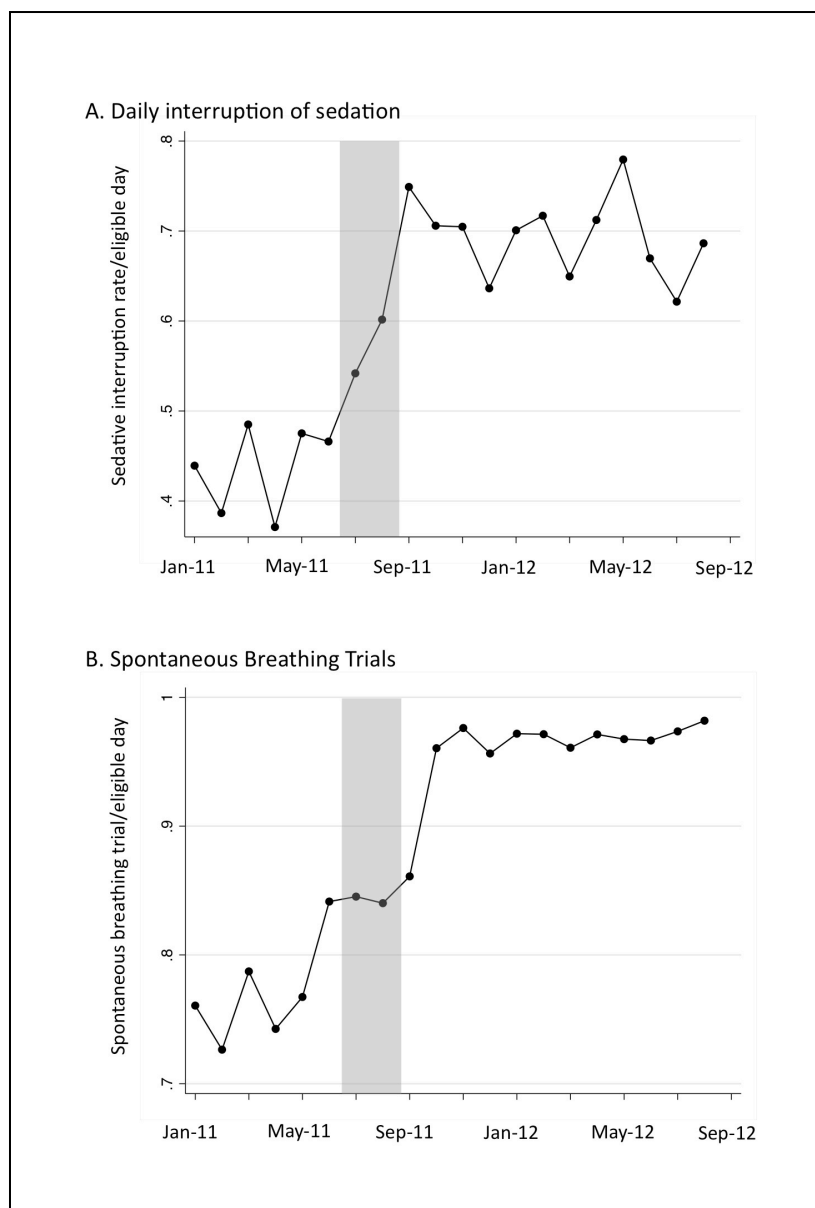
eFigure 2. ICU acquired complications over time, including catheter associated urinary tract infection (panel A), central-line associated blood stream infection (panel B) ad ventilator-associated pneumonia (panel C). Shaded area represents excluded run-in period, with included patients to the left (pre-period) and right (post-period) of the shaded area. For catheter associated urinary tract infections, the dotted line represents the change in the Centers for Disease Control definition. Admissions to the right of this line were excluded from the primary analysis.
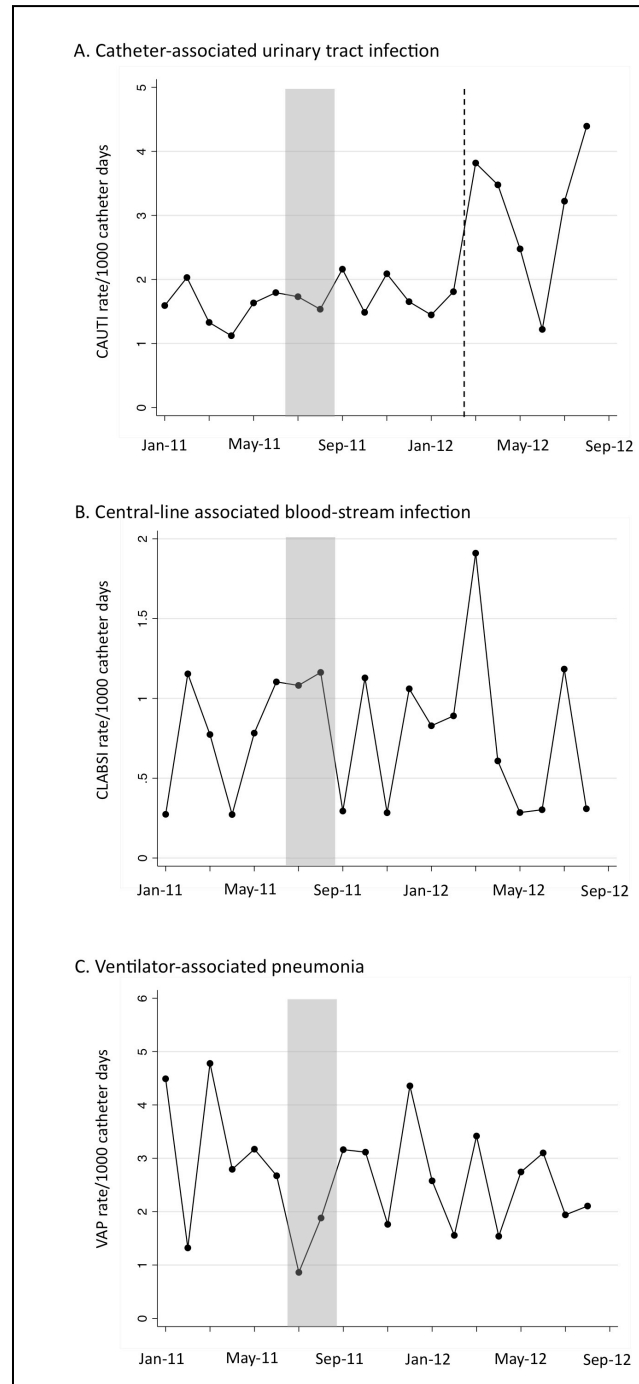
eTable 1. Analysis for temporal trends examining processes and complications of care within the 6-month pre-intervention period. The table compares admissions in the first three months of the pre-intervention ("early") to admissions in the second three months of the pre-intervention periods ("late"). A non-significant incident rate ratio indicates no significant differences between the early and period, suggesting no evident temporal trends occurring prior to the intervention.

	Early (N=2,132)	Late (N=2,207)	IRR (95% CI)	P-value
Processes				
Sedation interruption				
Days eligible	1034	841	0.99	0.91
Days received	456	368	(0.86 – 1.34)	
Rate	0.44	0.44		
Spontaneous breathing trial				
Days eligible	3478	3403	1.03	0.32
Days received	2641	2656	(0.97 – 1.08)	
Rate	0.76	0.78		
Complications				
CAUTI				
Infections	18	16	0.92	0.91
Catheter days	10,982	10,588	(0.47 – 1.81)	
Rate/1000 catheter days	1.64	1.51		
CLABSI				
Infections	8	8	0.99	0.98
Catheter days	11,000	11,131	(0.37 – 2.63)	
Rate/1000 catheter days	0.73	0.72		
VAP				
Infections	26	21	0.80	0.45
Ventilator days	7,219	7,274	(0.45 – 1.42)	
Rate/1000 ventilator days	3.60	2.89		

IRR = incidence rate ratio; DVT = deep vein thrombosis; CAUTI = catheter-associated urinary tract infection; CLABSI = central-line associated blood stream infection; VAP = ventilator-associated pneumonia

eTable 2. Analysis for temporal trends examining outcomes of care within the 6-month pre-intervention period. The table compares admissions in the first three months of the pre-intervention ("early") to admissions in the second three months of the pre-intervention periods ("late"). A non-significant change indicates no significant differences between the early and period, suggesting no evident temporal trends occurring prior to the intervention. N=2,132 in the early pre-intervention period and 2,207 in the late pre-intervention period.

	Effect estimate* (95% CI)	P-value
In-hospital mortality (odds ratio)	1.06 (0.86 – 1.31)	0.60
Duration of MV, days (adjusted difference)†	0.16 (-0.64 – 0.96)	0.69
ICU length of stay, days (adjusted difference)	0.07 (-0.28 – 0.41)	0.71
Hospital length of stay, days (adjusted difference)	0.34 (-0.51 – 1.19)	0.436

MV = mechanical ventilation; ICU=intensive care unit

* Effects estimated using multivariate regression adjusting for age, pre-intensive care unit length of stay, admission source, admission intensive care unit, severity of illness and comorbidities.

† Calculated in 1,770 patients receiving mechanical ventilation.

eTable 3. Sensitivity analysis in which we excluded each individual ICU in turn.

Outcome	Effect estimate (95% CI)	P-value
In-hospital mortality (odds ratio)		
Base estimate	0.96 (0.84 – 1.09)	0.39
Excluding Coronary Care Unit	0.94 (0.82 – 1.08)	0.54
Excluding Cardio-thoracic ICU	0.97 (0.85 – 1.11)	0.65
Excluding Medical ICU	0.98 (0.85 – 1.14)	0.82
Excluding Neurovascular ICU	0.93 (0.81 – 1.07)	0.33
Excluding Neuro-trauma ICU	0.97 (0.85 – 1.10)	0.60
Excluding Surgical ICU	0.95 (0.82 – 1.08)	0.42
Excluding Trauma ICU	0.97 (0.84 – 1.11)	0.61
Excluding Transplant ICU	1.00 (0.87 – 1.15)	0.99
Duration of MV, days (adjusted difference)		
Base estimate	-0.69 (-1.05 – -0.33)	<0.001
Excluding Coronary Care Unit	-0.61 (-0.96 – -0.27)	<0.001
Excluding Cardio-thoracic ICU	-0.66 (-1.04 – -0.27)	0.001
Excluding Medical ICU	-0.52 (-0.87 – -0.18)	0.003
Excluding Neurovascular ICU	-0.59 (-0.97 – -0.21)	0.002
Excluding Neuro-trauma ICU	-0.72 (-1.08 – -0.36)	<0.001
Excluding Surgical ICU	-0.72 (-1.09 – -0.35)	<0.001
Excluding Trauma ICU	-0.64 (-1.03 – -0.26)	0.001
Excluding Transplant ICU	-0.75 (-1.14 – -0.36)	<0.001
ICU length of stay, days (adjusted difference)		
Base estimate	-0.25 (-0.44 – -0.05)	0.02
Excluding Coronary Care Unit	-0.22 (-0.41 – -0.04)	0.02
Excluding Cardio-thoracic ICU	-0.24 (-0.44 – -0.04)	0.02
Excluding Medical ICU	-0.19 (-0.39 – -0.01)	0.05
Excluding Neurovascular ICU	-0.23 (-0.45 – -0.02)	0.04
Excluding Neuro-trauma ICU	-0.24 (-0.44 – -0.05)	0.02
Excluding Surgical ICU	-0.25 (-0.45 – -0.05)	0.02
Excluding Trauma ICU	-0.24 (-0.44 – -0.03)	0.02
Excluding Transplant ICU	-0.20 (-0.40 – -0.01)	0.05
Hospital length of stay, days (adjusted difference)		
Base estimate	-0.55 (-0.93 – -0.15)	0.006
Excluding Coronary Care Unit	-0.47 (-0.94 – -0.11)	0.011
Excluding Cardio-thoracic ICU	-0.51 (-0.87 – -0.15)	0.005
Excluding Medical ICU	-0.34 (-0.69 – 0.16)	0.06
Excluding Neurovascular ICU	-0.47 (-0.88 – -0.07)	0.02
Excluding Neuro-trauma ICU	-0.44 (-0.80 – -0.07)	0.02
Excluding Surgical ICU	-0.35 (-0.72 – 0.16)	0.06
Excluding Trauma ICU	-0.41 (-0.80 – -0.02)	0.04
Excluding Transplant ICU	-0.53 (-0.91 – -0.15)	0.006

eTable 4. Sensitivity analysis in which for patients with multiple ICU admissions we included a random ICU admission instead of the first ICU admission.

	Effect estimate* (95% CI)	P-value
In-hospital mortality (odds ratio)	0.97 (0.85 – 1.09)	0.59
Duration of MV, days (adjusted difference)†	-0.50 (-0.84 – -0.15)	0.005
ICU length of stay, days (adjusted difference)	-0.21 (-0.40 – -0.02)	0.03
Hospital length of stay, days (adjusted difference)	-0.37 (-0.72 – -0.03)	0.03

MV = mechanical ventilation; ICU=intensive care unit

* Effects estimated using multivariate regression adjusting for age, pre-intensive care unit length of stay, admission source, admission intensive care unit, severity of illness and comorbidities.

† Calculated in 5,213 patients receiving mechanical ventilation.